

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

ZAPFRAUD, INC.,

Plaintiff,

v.

FIREEYE, INC.,

Defendant.

C.A. No. 19-cv-1688-CFC-CJB

JURY TRIAL DEMANDED

ZAPFRAUD, INC.,

Plaintiff,

v.

MIMECAST NORTH AMERICA,
INC., ET AL.,

Defendant.

C.A. No. 19-cv-1690-CFC-CJB

JURY TRIAL DEMANDED

ZAPFRAUD, INC.,

Plaintiff,

v.

PROOFPOINT, INC.,

Defendant.

C.A. No. 19-cv-1691-CFC-CJB

JURY TRIAL DEMANDED

**PLAINTIFF ZAPFRAUD, INC.'S OBJECTIONS TO THE REPORT AND
RECOMMENDATION ISSUED BY MAGISTRATE JUDGE
CHRISTOPHER J. BURKE ON NOVEMBER 20, 2020**

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35 U.S.C. § 1038

35 U.S.C. § 2823

I. INTRODUCTION

Starting a hike at the wrong trailhead will invariably lead to an incorrect destination. Similarly, the patent eligibility analysis here begins in the wrong place, specifically starting with an abstraction untethered from the technical field, problem, and solution of the Jakobsson Patents¹. Those patents introduced a fundamental change to email security, replacing conventional, rigid filters with a nuanced, contextual analysis, and solved technical problems unique to email security. Indeed, the Patent Office issued the Jakobsson Patents having already examined them for subject-matter eligibility under post-*Alice*² law. Despite that, and premised on *three* key errors, the R&R granted Defendants' motions to dismiss.

First, Defendants urge the Court to adopt an abstract idea that cannot be correct. The Jakobsson Patents are directed to problems unique to email, such as malicious emails designed to circumvent conventional email security filters—the same problems that Defendants seek to solve with their products, many of which are at issue in these cases. But Defendants disregard the nature of the patents. Instead, they advocate an abstract idea so broad that it envelops conventional solutions that (1) Dr. Jakobsson expressly distinguished during prosecution and (2) would preempt

¹ U.S. Patent Nos. 10,277,628 and 10,609,073.

² *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208 (2014).

patentability of all email security. The R&R endorses that improper, over-broad abstract idea. But that invites error—the purported abstract idea cannot and should not embrace the solutions Dr. Jakobsson expressly distinguished during prosecution.

Second, even if Defendants’ characterization of the Jakobsson Patents is correct (it is not), Defendants must demonstrate by clear and convincing evidence that the Jakobsson Patents are directed to unpatentable subject matter. That is an especially difficult task here because the Jakobsson Patents underwent substantive examination during prosecution *on this very issue*. Dr. Jakobsson convinced the examiner that his solution was not only novel and non-obvious, but also unconventional and not directed to an abstract idea. Yet, the Defendants fail to address the Office’s express finding on patentability, and in doing so, disregard their burden to demonstrate invalidity. That was error.

Finally, the Court must accept all facts as true at the pleadings stage. Having been led astray by an articulation of an overbroad abstract idea, the R&R did not resolve whether a person of ordinary skill in the art would find the claims routine and conventional. There is no basis that a person of ordinary skill would find the claim elements (such as applying a contextual analysis based on information about “authoritative entity,” computing a “similarity distance,” or the separate concepts imbued in the dependent claims like using “a collection of terms” and “equivalence analysis”) routine or conventional.

The R&R invites legal error, and this Court should not adopt it.

II. LEGAL STANDARDS

A. Standard of Review

“A district judge is charged with conducting a de novo review of a magistrate judge’s report and recommendation to which specific, written objections are made.” *MacQueen v. Warren Pumps LLC*, 246 F. Supp. 3d 1004, 1006 (D. Del. Mar. 31, 2017).

B. Burden of Proof

Patents are presumed valid. 35 U.S.C. § 282. “This presumption reflects the fact that the Patent and Trademark Office has already examined whether the patent satisfies the prerequisites for issuance of a patent, including § 101.” *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1319 (Fed. Cir. 2019), cert. denied sub nom. *Garmin USA, Inc. v. Cellspin Soft, Inc.*, 140 S. Ct. 907 (2020). All facts pertinent to invalidity must be proven by “clear and convincing evidence.” *Id.* (quoting *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018)).

C. Motion To Dismiss

A court may grant a motion to dismiss “only if, ‘after accepting all well-pleaded allegations in the complaint as true, and viewing them in the light most favorable to plaintiff, plaintiff is not entitled to relief.’” *Visual Effect Innovations, LLC v. Sony Elecs. Inc.*, No. CV 17-1276-LPS, 2018 WL 4700225, at *2 (D. Del.

Sept. 30, 2018) (quoting *Maio v. Aetna, Inc.*, 221 F.3d 472, 481-82 (3d Cir. 2000)).

With respect to patent-eligibility questions, “[w]hether the claim elements or the claimed combination are well-understood, routine, [and] conventional” can be an issue of fact that precludes granting a motion to dismiss. *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1128 (Fed. Cir. 2018).

III. THE JAKOBSSON PATENTS CLAIM A TECHNICAL SOLUTION TO A TECHNICAL PROBLEM

Defendants contend that the Jakobsson Patents are directed to the abstract idea of “identifying deceptive messages that appear to be from a trustworthy source and taking action accordingly.” (R&R at 8.) That putative abstract idea strays far from the actual problem addressed by the Jakobsson Patents, which concerns classifying incoming electronic communications, not any particular type of “deceptive messages,” or evaluation of trustworthiness, or taking any action. Rather, the Jakobsson Patents claim an unconventional technical solution directed at solving problems with existing email classification systems.

Existing email security systems blocked unwanted emails using rigid approaches, for example by blacklisting known malicious email accounts or blocking emails that contain blacklisted terms. (D.I. 34 at 5-6; D.I. 29, Ex. A (the

“’628 Patent”), 1:19-22; D.I. 32, Ex. A [’628 Patent File History] at 139.³) Such blacklists were a compilation of *known* bad actors or keywords, and as such, were easily circumvented if the bad actor simply registered for a new email account or creatively drafted the email to avoid the blacklisted terms. (D.I. 34 at 5-6; Ex. A at 139; ’628 Patent, 1:22-30; 4:7-10; D.I. 29 (“SAC”), ¶ 28.)

The Jakobsson Patents represent a paradigmatic shift in email security systems and address problems associated with that field. Specifically, they propose an analysis from the recipient’s perspective, based on indicators unique to email (such as display name and/or email address) and a list of “authoritative entities” (entities that the recipient will find trustworthy, such as the recipient’s business partner or a public entity such as a bank), and focus on those communications that are designed to induce a (false) sense of trust. (’628 Patent, cl. 14; 3:15-22 (“combine an assessment of the likely end-user interpretation of the message ... with an assessment of whether the apparent sender matches the actual sender”); SAC, ¶ 29.) The claimed novel solutions block fraudulent emails that conventional security systems often missed. (’628 Patent, 1:15-32, 2:59-66, 3:41-4:13 (“The degree of possible customization of scam messages make it particularly difficult for existing email filters to provide sufficient protection, as evidence by the ongoing success of

³ Hereinafter, “Ex. A.”

such scams.”); Ex. A at 139 (“Current approaches do not perform such a determination”); SAC, ¶¶ 1, 28.) Courts routinely determine that technological improvements to technical problems are patent eligible. *E.g.*, *Finjan v. Blue Coat Sys.*, 879 F.3d 1299, 1303-05 (Fed. Cir. 2018) (finding patent claims to be eligible that store new information, *i.e.*, information about code that performs potentially hostile operations, in a file to permit the computer system “to do things that it could not do before”).

IV. ARGUMENT

A. Defendants Urge The Court To Adopt An Abstract Idea That Cannot Be Correct

Defendants’ alleged abstract idea—“identifying deceptive messages that appear to be from a trustworthy source and taking action accordingly” (R&R at 8)—is demonstrably overbroad. That purported abstract idea would encompass conventional blacklists, which the patentee expressly distinguished in prosecution—an absurdity the R&R acknowledges but fails to amend. (R&R at 16 n.9.)

Defendants made the same error as accused infringers in other cases that advocated an overly broad abstract idea in a patent eligibility challenge. *E.g.*, *Finjan*, 879 F.3d at 1304-05 (finding claims not directed to the broad concept of virus screening); *Acceleration Bay LLC v. Activision Blizzard, Inc.*, No. CV 16-453-RGA, 2017 WL 3738468, at *3 (D. Del. Aug. 29, 2017) (finding claims not directed an abstract idea and rejecting oversimplified human analogies that do not “present

the same ... issues as those that arise in computer networks”). Overlooking the improved technical solution embodied in the Jakobsson claims, Defendants proffered an abstract idea that is “untethered” from the patent. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Adopting that abstract idea is error.

B. Defendants Cannot Meet The Burden To Show Ineligibility By Clear And Convincing Evidence

Because Defendants bear the burden to demonstrate that the claims are invalid for lack of patent eligibility, Defendants must demonstrate that the patents are invalid. *E.g., Berkheimer*, 881 F.3d at 1368. Here, given the prosecution history, it is especially difficult for Defendants to meet their burden. *See Galderma Labs., L.P. v. Sun Pharm. Indus. Ltd.*, 411 F. Supp. 3d 271, 289-90 (D. Del. 2019) (*quoting Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1467 (Fed. Cir. 1990)) (holding that it was “especially difficult” to show §§ 102 and 103 invalidity when the patent office had already considered the bases for invalidity). Defendants essentially recycle the same patent eligibility arguments raised during prosecution. (D.I. 32 at 12.) For example, the patent examiner raised concerns that humans could duplicate the claimed activities. (Ex. A at 57, 120.) Dr. Jakobsson overcame those objections, explaining the specific technological improvements covered by his patents (Ex. A at 96-98, 112-16, 138) and why his claims are not directed to the

abstract idea of identifying deceptive messages. (Ex. A at 156, 183-85.) Specifically, Dr. Jakobsson distinguished his unique approach from conventional solutions to email security and oriented the patent examiner as to the nature of the problem:

This is at heart a technical problem, as end users have been proven to be very bad at detecting things that look credible but which are not — in fact the more credible something looks, the more people fall for it. In contrast, the solution recited in the independent claims has the property that the more credible something looks—while not being credible—the more likely it will be detected and blocked....

(Ex. A at 183.) Defendants urge this Court to re-examine the patent office’s work; it should not do so here.

C. At A Minimum, Disputed Issues Of Fact Exist As To Whether The Claimed Inventions Are Unconventional, Which Precludes Granting The Motions To Dismiss

Even accepting Defendants’ abstract idea and setting aside Defendants’ burden, Defendants’ motion should not be granted because factual disputes exist as to the unconventionality of the claimed inventions. Accepting statements in the pleadings and the Jakobsson Patents as true, this Court “cannot conclude that the asserted claims lack an inventive concept.” *Cellspin*, 927 F.3d at 1318; *see also Aatrix*, 882 F.3d at 1129 (finding no record evidence that the claims describe

well-understood and routine functioning of a computer); *Berkheimer*, 881 F.3d at 1369-70 (precluding summary judgment where there is a factual dispute regarding conventionality)); *CAP-XX, Ltd. v. Ioxus, Inc.*, No. CV 18-849-CFC, 2020 WL 998536, at *4 (D. Del. Mar. 2, 2020) (denying a motion for judgment on the pleadings because factual disputes exist, citing *Berkheimer*).

The Jakobsson Patents teach at least three inventive concepts that depart from the conventional approaches to email security and that would be inventive to one of skill in the art.

1. Performing A Contextual Analysis Based On “Authoritative Entity”

ZapFraud argued that the claims of the Jakobsson Patents recite an inventive concept of performing a contextual analysis based on an “authoritative entity,” specifically performing a dual determination of whether an incoming email appears to originate from an authoritative entity and whether the email was indeed from the apparent authoritative entity; this analysis was “not performed” before. (D.I. 34 at 20; Ex. A at 139.) The R&R incorrectly focused on the use of a “database” to store information. (R&R at 20.) That fatally undermines its conclusion.

Indeed, Defendants’ alleged human analogue—a person, receiving a letter purporting to be from a business partner but has unusual spelling or formatting, decides that the letter was fraudulent—ignores Dr. Jakobsson’s unique contribution

to email security. Indeed, the claimed solutions address the very problem that a human is *unable* to discern whether an email that appears to be from an authoritative entity is actually fraudulent. (’628 Patent, 1:28-30 (“the goal of a fraudster is often to craft a message that looks as legitimate as possible”).) Prior solutions could not effectively block such attacks either, leaving recipients vulnerable to attack. (*Id.* 4:7-11.)⁴

2. Computing A “Similarity Distance”

ZapFraud argued that the Jakobsson claims recite the inventive concept of computing a “similarity distance” between an indicator in an email (such as display name) and information about the authoritative entity (such as name) to determine whether an email appears authoritative to a recipient. (D.I. 34 at 20.) The claims recite several specific ways to compute a similarity distance, including, e.g., by determining that the compared items are the same, computing a Hamming distance, using a support vector machine, etc. (’628 Patent, 35:60-36:3.) The claimed

⁴ Defendants allege that human involvement in one step in one embodiment to support its flawed contention that the claims replicate a human activity, (*see* D.I. 36 at 4-5 (citing ’628 Patent, 8:11-40)), again starting from the wrong footing. That embodiment begins with an incoming email, (’628 Patent, Fig. 2, 6:35-8:44), and includes analysis of unique email properties. (*Id.* at 7:6-47 (classification using, e.g., email headers, display names, originators, time, content, location, IP address)). That humans might be involved in one step of the evaluation process, but cannot accurately identify deceptive messages, (*e.g., id.*, 8:20-24), confirms that the Jakobsson Patents do not automate human practices.

invention defeats the tactic of deceptive emails designed to circumvent conventional security systems. (*See id.* 1:19-26.) Defendants contend that this element could be satisfied using a simple comparison. But even if true, that raises an issue of novelty or obviousness, not patent eligibility. The pleadings and the Jakobsson Patents describe the unconventionality of this approach. Therefore, the Court cannot resolve the parties' apparent dispute on the pleadings.

3. Using A “Collection of Terms” And “Equivalence Analysis”

Dependent claims 4 and 5 recite the additional inventive concepts of using a “collection of terms” and “equivalence analysis” to determine whether an email appear authoritative. The specification describes applying a rule involving a “collection of terms” (such as “ACME” and “Bank”) and “equivalent terms” (such as “Bank” and “Bnk”) to identify emails that a recipient would perceive as having come from an authoritative entity (ACME Bank). ('628 Patent, 11:52-66; 11:32-34; 28:4-34.) Those approaches are demonstrably unconventional—they improve upon conventional email classification systems and claim specific approaches for defeating specific types of deceptive emails. Defendants do not present any evidence to the contrary, providing no basis to resolve this dispute on the pleadings. *See, e.g., Guada Techs. LLC v. Vice Media, LLC*, 341 F. Supp. 3d 390, 399 n.4 (D. Del. 2018) (“Defendant provides no other basis upon which I can determine the

factual correctness of Defendant's argument given that we are at the motion to dismiss stage of the case.")

V. CONCLUSION

For the foregoing reasons, the Court should sustain ZapFraud's objection.

Dated: December 11, 2020

Respectfully submitted,

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CERTIFICATION OF COMPLIANCE

The foregoing document complies with the type-volume limitation of this Court's November 6, 2019 form Scheduling Order For All Cases is Alleged. The text of this brief, including footnotes, was prepared in Times New Roman, 14 point. According to the word processing system used to prepare it, the brief contains 2,481 words, excluding the case caption, signature block, table of contents and table of authorities.

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